

ABSTRACT OF THE DISCLOSURE

1 An optical imager, such as a microscope for performing multiple frequency
2 fluorometric measurements comprising a light source, such as a laser source is
3 disclosed. The system is used to excite a sample into the fluorescent state. Light
4 from the excited sample is collected by a microscope. The microscope utilizes
5 conventional confocal optics optimized to have a very narrow depth of field, thus
6 limiting the information collected to a thin planar region. Measurements are taken
7 over the fluorescence lifetime of the sample simultaneously from the excitation
8 source and from the excited sample. Information is taken in a matrix and
9 comparison of the image matrix and the standard during simultaneous
10 measurements yields output information.
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